

**REIGATE RURAL DISTRICT.**

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# **Annual Report**

OF THE

**Medical Officer of Health,**

**A. E. PORTER, M.A., M.D., D.P.H.,**

**For the Year 1913.**

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REDHILL :

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# REIGATE RURAL DISTRICT.

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## ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

For the Year 1913.

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**To the Chairman and Members of the  
District Council.**

GENTLEMEN,

I beg to present my Annual Report for the year 1913, the eighth that I have had the privilege of preparing. Being drawn up in accordance with the Memorandum received annually from the Local Government Board, it contains considerable repetition of information in the reports for previous years.

A somewhat unusual number of matters, apart from routine subjects bearing on the public health of the district, have been under the special consideration of the Council during the year, including the housing accommodation for the working classes in various parishes, the disposal of sewage in certain parishes, and the enlargement of the isolation hospital. The two latter are intimately connected with the progressive developement of the area under the Council's supervision.

The general death rate of the district, and the death rate among infants were of their usual satisfactory character, and the prevalence of notifiable disease was at or below the average figure.

I am, Gentlemen,

Your obedient servant,

ARTHUR E. PORTER  
(*Medical Officer of Health*).

REIGATE,

*Feb. 11th, 1914.*



## SECTION I.

### PHYSICAL AND SOCIAL FEATURES, &c., OF THE DISTRICT.

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The district consists of thirteen civil and twenty-two ecclesiastical parishes, surrounding the Borough of Reigate eccentrically. One of the ecclesiastical parishes includes a small portion of the Borough, while about two-thirds of the ecclesiastical parish of Copthorne are situated in Sussex.

The elevation above O.D. varies from 763 feet in Lower Kingswood to 148 feet where the River Mole leaves the western boundary. The portion of the district lying south of the North Downs, is within the watershed of that river, the remainder draining towards the Thames Valley, but with no defined water courses. The whole of the district is undulating and is situated on a variety of geological formations, the lines of whose outcrops run roughly east and west. In the north is the chalk, which is covered by varying depths of brick-earth, clay, or gravel, but which is almost bare in many localities. Rising gradually from the Thames Valley this terminates in the escarpment of the North Downs.

South of the chalk are successive narrow outcrops of the Upper Greensand, Gault and Lower Greensand, the last lying on the Weald Clay, which stretches into Sussex. It contains local deposits of gravel and alluvium, and in the extreme south-east of the district gives way to the Tunbridge Wells sands.

The district is mainly residential and agricultural. It is served by two lines of railway, which employ a number of the inhabitants. The chief other industry is the building trade, but there is a considerable factory in Horley parish,

limeworks in Merstham, Buckland and Betchworth parishes, and a few brickfields.

The principal public institutions consist of the Surrey County Council Asylum (Merstham) and the London County Council Inebriate Colony at Farmfield (Charlwood).

The Reigate Union comprises the Borough as well as the Rural District. On January 1st, 1913, there were 14·0 paupers per 1000 of the census population, the number receiving indoor relief (exclusive of those in lunatic asylums) being slightly in excess of those receiving out-door relief.

The Reigate and Redhill Hospital, with 31 beds and nine cots, serves some of the parishes in the immediate neighbourhood of the Borough, while the Horley Cottage Hospital offers facilities to Horley, Burstow and Charlwood. Neither institution has an out-patient department.

The rateable value of the District on December 31st, 1913, was £206,312, and the assessable value £194,153, a penny rate producing £808 19s. 5d. Outstanding loans on Lady-day, 1913, amounted to £11,868 4s. 7d.



## SECTION II.

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### VITAL STATISTICS.

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**Population.** Judging from the number of new houses completed for occupation, and making allowance for those closed or untenanted, the population at the middle of 1913 should be about 21,740, including the inmates of Netherne Asylum. This is a figure almost 400 below that which would be obtained by the usual method of calculation on the increase between the previous two census, but is probably more nearly correct, inasmuch as the period between 1901 and 1911 witnessed the completion of the Asylum referred to.

**Birth-rate.** To the 408 births registered in the district must be added those of 6 infants who were actually born in the Union Workhouse or elsewhere, five of these being illegitimate. The 414 births correspond to a birth rate of 19·0 per 1,000 of the population against 16·1 in 1912, and a mean of 19·9 for the five years 1908—12.

**Death-rate.** The number of deaths actually registered in the district was 256. Of these 72 properly belonged to other districts (being chiefly inmates of Netherne Asylum), whilst 30 persons dying outside (Union Infirmary and elsewhere) were transferable to the district. The resulting 214 deaths correspond to a nett death-rate of 9·8 per 1,000 of the estimated population. It compares with 10·0 for 1912 and 9·6 the mean of the five years 1908—12. Column 13 of Table I. shows how strikingly uniform the nett death-rate has been for the past six years, considering the comparative smallness of the population, and this constancy may be taken to be an equally satisfactory feature as the lowness of the rates themselves.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1913 AND PREVIOUS YEARS.

YEAR.	Population estimated to middle of each year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS		NETT DEATHS BELONGING TO THE DISTRICT.			
		Uncorrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of age.		Number.	Rate.
			Number.	Rate.					Number.	Rate per 1,000 Nett Births.		
1	2	3	4	5	6	7	8	9	10	11	12	13
1908	19217	466		24.2	166	8.6	7	30	33	71	189	9.8
1909	20286*	374		19.1	185	9.1	26	21	21	56	180	9.2
1910	20910*	420		21.0	236	11.3	58	21	25	60	199	10.0
1911	21195*	396	407	19.1	237	11.1	80	37	26	64	194	9.1
1912	21490*	342	345	16.1	226	10.5	64	53	27	78	215	10.0
1913	21740*	408	414	19.0	256	11.8	72	30	24	58	214	9.8

At Census of 1911 :—Total population at all ages, 21,195 ; Number of inhabited houses, unknown ; Average number of persons per house, unknown.

Area of District in acres (land and inland water) 44,506.

\* Includes the inmates of Netherne Asylum.

The death rate of a district depends on many factors, for example the social condition of the population, the constancy of remunerative employment for the working classes, the nature of the principal industries carried on, the quality of the houses provided, the general sanitary supervision exercised, and the sex and age distribution of the population. This last consideration is one of the most important, since the expectation of life among females is greater than that among males at almost every age period, whilst a district containing an excess of persons at the two extremes of life is obviously less favourably situated for a low mortality rate than one containing a preponderance of young adults. In order to correct discrepancies of this kind, the Registrar-General has calculated a factor for each district of England and Wales, which, when multiplied by the nett death rate, gives the "Standardised" death rate, or that which should occur, were the age and sex distribution of the district in question proportionately similar to that of England and Wales at the census of 1901 (which is taken for convenience as the standard).

The factor for the Reigate Rural District for the present decennium is 0.9551, and the standardised death rate for 1913 was therefore 9.36, or roughly 9.4.

Though the winter was a mild one, the deaths among the aged were above the average, 44 per cent. of them being in persons above the age of 65, whilst 14 per cent. were above that of 80.

Influenza appears to have been particularly virulent, 25 deaths, or nearly 12 per cent. of all being ascribed to this cause. Whooping cough accounted for four deaths: otherwise there was no special predominance of any particular causation.



## TABLE II.

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1913.

Causes of Death.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.								Total Deaths whether of "Residents" or "Non- Residents" in the District.	
	All ages.	Under 1 Year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45	45 and under 65.		65 and upwards.
1	2	3	4	5	6	7	8	9	10	11
All causes { Certified Uncertified	213 1	23 1	2 ..	7 ..	7 ..	5 ..	26 ..	48 ..	95 ..	86 ..
Enteric Fever	..	..	..	..	..	..	..	..	..	..
Small-pox	..	..	..	..	..	..	..	..	..	..
Measles	3	..	..	2	1	..	..	..	..	1
Scarlet Fever	..	..	..	..	..	..	..	..	..	..
Whooping-cough	4	2	1	1	..	..	..	..	..	..
Diphtheria and Croup	1	..	..	1	1	1	2	7	12	1
Influenza	25	1	..	1	..	..	..	..	..	2
Erysipelas	..	..	..	..	..	..	..	..	..	..
Phthisis (Pulmonary Tuberculosis)	13	..	..	..	..	2	8	3	..	4
Tuberculous Meningitis	..	..	..	..	..	..	..	..	..	..
Other Tuberculous Diseases	1	..	..	..	..	..	1	..	..	..
Cancer, malignant disease	20	..	..	..	..	1	..	9	10	2
Rheumatic Fever	..	..	..	..	..	..	..	..	..	1
Meningitis	2	..	1	..	..	..	..	..	1	..
Organic Heart Disease	31	..	..	..	..	..	1	8	22	5
Bronchitis	8	1	..	..	..	..	..	1	6	4
Pneumonia (all forms)	8	1	..	1	..	1	2	2	1	3
Other Diseases of Respiratory Organs	2	..	..	..	..	..	1	..	..	..
Diarrhoea and Enteritis	3	3	..	..	..	..	..	..	..	..
Appendicitis and Typhlitis	1	..	..	..	1	..	..	..	..	..
Cirrhosis of Liver	1	..	..	..	..	..	1	..	..	..
Alcoholism	2	..	..	..	..	..	1	..	..	..
Nephritis and Bright's Disease	6	..	..	..	..	..	2	2	4	6
Puerperal Fever	2	..	..	..	..	..	2	..	..	..
Other accidents and diseases of Pregnancy and Parturition	1	..	..	..	..	..	1	..	..	..
Congenital Debility and Malformation, including Premature birth	9	9	..	..	..	..	..	..	..	..
Violent Deaths, excluding Suicide	8	..	..	1	3	..	1	1	2	3
Suicides	..	..	..	..	..	..	..	..	..	1
Other Defined Diseases	49	7	..	..	1	..	3	14	24	30
Diseases ill-defined or unknown	14	..	..	..	..	..	1	..	13	14
	214	24	2	7	7	5	26	48	95	86
Sub-Entries, included in above figures. 14 (a). Cerebro-spinal Meningitis 28 (a). Poliomyelitis...	..	..	..	..	..	1	..	..	..	..

Sub-Entries, included in above figures.

14 (a). Cerebro-spinal Meningitis

28 (a). Poliomyelitis...

The excess of births over deaths in 1913 was 200, as against 130 in 1912.

**Infantile Mortality.**—Among infants under one year of age there were 24 deaths, giving an infant mortality rate of 58 per 1000 registered births. This compares with 78 in 1912, and a mean of 66 for the five years 1908—12. With the exception of the year 1905, when it was 55, and 1909, when it was 56, this is the lowest rate recorded since statistics were compiled in 1874. Over half of the deaths were from causes operative at or before birth: of those theoretically preventable whooping cough accounted for two, bronchitis and pneumonia for one each, diarrhœa for two and enteritis for one, a total of seven.

Diarrhœal diseases were responsible for 3 deaths, one in Brockham occurring in August, one at Smallfield at the end of November, and one at Hookwood at the beginning of December. The two latter were therefore not of the epidemic summer type. At the end of June a circular was sent to selected addresses, at which a birth had been registered during the previous twelve months, warning parents as to the danger to be anticipated from summer diarrhœa, and indicating the frequently infectious character of the complaint. During the summer months this circular was enclosed with the hanging card, that has now been circulated for many years among the occupiers of these houses, giving a few suggestions as to the feeding and care of infants.

A circular letter from the Local Government Board, advocating the appointment of a health visitor and the adoption of the Notification of Births Act, was considered by the Council during the year, but no action was deemed necessary. Should the Council be disposed in the future to obtain the part time services of a health visitor (*e.g.*, a tuberculosis visitor), it would probably be desirable to limit

TABLE III. INFANT MORTALITY.

1913. NETT DEATHS FROM STATED CAUSES AT VARIOUS AGES UNDER ONE YEAR OF AGE.

Cause of Death.	Period.							Total Deaths under 1 year.		
	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 months and under 6 months.		6 months and under 9 months.	9 months and under 12 months.
All Causes { Certified... { Uncertified	10 1	1 ..	1 ..	.. ..	12 1	3 ..	2 ..	.. ..	6 ..	23 1
Small-pox ..	..	..	..	..	..	..	..	..	..	..
{ Chicken-pox ..	..	..	..	..	..	..	..	..	..	..
{ Measles ..	..	..	..	..	..	..	..	..	..	..
{ Scarlet Fever ..	..	..	..	..	..	..	..	..	2	2
{ Whooping Cough... ..	..	..	..	..	..	..	..	..	..	..
Diphtheria & Croup ..	..	..	..	..	..	..	..	..	..	..
Erysipelas ..	..	..	..	..	..	..	..	..	..	..
{ Tuberculous Meningitis ..	..	..	..	..	..	..	..	..	..	..
{ Abdominal Tuberculosis ..	..	..	..	..	..	..	..	..	..	..
{ Other Tuberculous Diseases ..	..	..	..	..	..	..	..	..	..	..
Meningitis (not Tuberculous)... ..	..	1	..	..	2	1	..	..	..	3
Convulsions ..	..	..	..	..	..	..	..	..	..	..
Laryngitis ..	..	..	..	..	..	..	..	..	1	1
Bronchitis ..	..	..	..	..	..	..	..	..	1	1
Pneumonia (all forms) ..	..	..	1	..	1	..	..	..	1	2
{ Diarrhoea ..	..	..	..	..	..	..	1	..	..	1
{ Enteritis ..	..	..	..	..	..	..	..	..	..	..
Gastritis ..	..	..	..	..	..	..	..	..	..	..
Syphilis ..	..	..	..	..	..	..	..	..	..	..
Rickets... ..	..	..	..	..	..	..	..	..	..	..
Suffocation, overlying ..	..	..	..	..	..	..	..	..	..	..
Injury at Birth ..	2	..	..	..	2	..	..	..	..	2
Atelectasis ..	1	..	..	..	1	..	..	..	1	1
{ Congenital Malformations ..	1	..	..	..	1	..	..	..	..	2
{ Premature Birth ..	5	..	..	..	5	..	..	..	..	5
{ Atrophy, Debility, Marasmus ..	1	..	..	..	1	1	1	..	..	2
Other causes ..	..	..	..	..	..	..	..	..	..	2
	11	1	1	..	13	3	2	..	6	24

Births in the year : Legitimate, 403 ; illegitimate 11.      Nett Deaths in the year of : legitimate infants, 23 ; illegitimate infants, 1.



her work in the first instance to the more populous localities, such as Horley Village and South Merstham, even though it has happened in recent years that the mortality among infants in these localities has compared quite favourably with the low rate obtaining throughout the district.

The following table shows the principal vital statistics for 1913 in comparison with England and Wales and certain divisions of the latter :—

	per 1,000 living.		Deaths under 1 year per 1000 births.
	Birth rate.	Standardised death rate.	
England and Wales... ..	23·9	13·4	109
145 smaller towns ... ..	23·9	13·0	112
England and Wales, less the 241 Towns...	22·2	12·1	96
Reigate Rural District ... ..	19·0	9·4	58

As in previous reports, I append a table shewing statistics for the three groups of parishes into which I have divided the district, the “Northern Group” comprising Chaldon, Chipstead, Gatton, Kingswood, Merstham and Walton-on-the-Hill; the “Central Group” Betchworth, Buckland and Nutfield; and the “Southern Group” Burstow, Charlwood, Horley and Leigh :—

	Birth rate.	Death rate (nett).	Infant mortality per 1,000 births.
Northern group ... ..	19·4	7·8	27
Central „ ... ..	17·4	11·6	93
Southern „ ... ..	19·0	10·7	68

The infant mortality record of the northern group is striking : there were only four deaths of infants, against 147 births, and all were due to prematurity of birth or congenital defects. The population concerned is about 7,500.

The figures for the central group form an excellent illustration of the fallacy of attaching any importance to the statistics of a single year in a small population (4,300). This group of parishes has been characterised over a long period by low rates of general and infant mortality. In 1912 they were 8·9 and 28 respectively, whilst the mean rates for the ten years 1901-10 were 9·0 and 40. Influenza and an excessive mortality from heart disease among the aged were chiefly responsible for the relatively high death rate, whilst the deaths amongst infants amounted to seven, 3 of which were from prematurity of birth, 1 from injury at birth, 1 from diarrhœa, and 1 each from influenza and bronchitis respectively. There were only 75 births.

## SECTION III.

### THE COMMUNICABLE DISEASES.

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#### 1.—The Notifiable Diseases.

As regards smallpox, the Council is one of the contributory Authorities of the Surrey Smallpox Hospital District, and has the privilege of paying a substantial annual sum for an empty hospital, without any direct representation on the Committee.

Accommodation is provided for cases of scarlet fever, diphtheria and enteric fever at the Council's hospital in the north-east corner of Horley parish. The scarlet fever pavilion contains two wards, each capable of taking five or six patients, and a small room entirely cut off from the wards. The diphtheria pavilion likewise consists of two wards for about eight patients, apart from a third smaller ward, formerly used by the nurse in attendance. One of the larger wards has a separate entrance, and can be entirely cut off from the rest of the pavilion, so as to serve for cases of enteric fever, or for convalescent patients, if required.

In my report for 1912 I indicated that the accommodation was scarcely adequate for the needs of the district, which has shown considerable and consistent increase in population since the existing buildings were provided. The Council referred the matter to the Works and Drainage Committee, and have accepted their report, which recommended the provision of a new ward pavilion for scarlet fever cases.

There is a steam disinfecter in the grounds, where textile articles from infected houses can be dealt with. The officer who works the machine disinfects the interiors of houses where cases of infectious diseases occur, usually employing a spray for this purpose.

Patients convalescent from diphtheria are not allowed to return home until two successive swabs have been examined from both throat and nose with negative results.

When a case of scarlet fever or diphtheria is treated at home, a hanging card is sent, detailing the precautions to be taken, and disinfectant is supplied.

School children who are convalescent from scarlet fever or diphtheria are examined by myself after discharge from hospital. Swabs from the throats and noses of the latter are examined bacteriologically, and from the noses of the former if rhinorrhœa is observed. Even if the scarlet fever convalescents appear healthy, they are not allowed to return to school for at least a month.

Anti-diphtheria serum is supplied gratuitously to poor families for both prophylactic and curative purposes. It is practically never employed for the former, reliance being placed on the examination of contacts bacteriologically. The throats and noses of all school children in infected houses are thus examined ; occasionally those of older and younger inmates. Where necessary, school contacts are also examined.

Table IV. shows the notifications received during the year, and the number of patients removed to hospital. They were derived from the various parishes as under :—





Parish.	Scarlet Fever.	Diph- theria.	Ery- sipelas.	Puer- peral Fever.	Pulmon- ary Tub- ercul'sis	Other forms of Tuber- culosis.	Total
Betchworth	...	3	...	1	5	...	9
Buckland ..	...	5	...	...	1	...	6
Burstow ...	2	...	3	...	...	...	5
Charlwood	1	1	...	...	4	...	6
Chipstead ..	1	...	...	...	2	.	3
Horley ...	2	9	1	1	20	1	34
Kingswood	3	...	...	...	5	...	8
Merstham ..	11	2	6	...	14	...	33
Nutfield ...	6	...	2	...	5	2	15
Walton-on- the-Hill ..	1	1	1	...	1	...	4
Total ...	27	21	13	2	57	3	123

The civil parishes of Chaldon, Gatton and Leigh escaped the occurrence of any notifiable disease throughout the year, and the whole district was free from typhoid fever.

**Scarlet Fever.**—Twenty-five cases of the disease were notified by medical practitioners, and two more were found by myself in the peeling stage, one in Nutfield, the other in South Merstham. The total of 27 is considerably below the annual average for the district, and there was nothing approaching an epidemic in any of the parishes. Twenty-one different households were involved, and twenty-one cases were treated in hospital.

The largest group occurred in Merstham during April and May, and was chiefly due to a child who had been kept from School for twelve days with “influenza,” but who was actually suffering from scarlet fever. Four more cases occurred in her own family and at least one outside it.



Similarly in Nutfield Infant School I found a child peeling, who had had a febrile attack a fortnight previously, and had infected another child in the same class.

Comparatively little harm resulted fortunately, but both incidents emphasize the value which should result from employing a school nurse, experienced in the common infectious diseases, to systematically examine children absent from school on account of illness when no medical advice has been sought. This is a subject to which I have previously referred, and which may legitimately be emphasized.

One "return case" occurred during the year, a boy being discharged from hospital on April 26th, after 7 weeks' isolation, and infecting his sister on August 12th. The interval is a very long one, but I think that there is little doubt as to the connection: moreover he was probably responsible for an attack in a child in the same class at school on July 15th. Following my usual custom, I had examined him at home on May 5th, when the throat, nose and ears appeared to be quite healthy. He should have returned to school about the end of May, but, by an oversight, did not do so till the beginning of July.

A different kind of "return" case occurred in South Merstham, where two sisters returned home from hospital after definite attacks of scarlet fever on June 21st, one of them having a discharging finger. On August 12th the other sister commenced with a second definite attack of scarlet fever, and both were taken back to the hospital.

None of the attacks proved fatal.

**Diphtheria.**—Thirteen cases of diphtheria were notified by private practitioners, and 8 were found by myself in the course of enquiries, in addition to as many as 16 carriers. The 21 cases of true diphtheria occurred in 18

different dwellings, and 17 were removed to hospital. One death resulted. The incidence of slightly under 1 case per 1,000 of the population is about the average figure for the district since the disease became notifiable in 1890, and the fatality of 5 per cent. is a decidedly low one. The incidence rate would be 40 per cent. lower, if only the cases actually notified were included.

The Ecclesiastical Parishes chiefly involved were Buckland, Brockham and Horley.

In Buckland, on the occurrence of a notified case in February, I visited the school and found an obvious case of nasal diphtheria there. Visits to the homes of children absent from school yielded 3 cases of diphtheria with no doctor in attendance. Bacteriological examinations of other children in infected or adjoining houses brought to light 3 carriers.

The school was closed for a month and handbills were distributed to representatives of the various families. On re-opening, the County Medical Officer of Health detailed a School Nurse to periodically visit those children who were kept at home on account of illness, but no further cases of the disease occurred. Valuable as this supervision is during or after an outbreak, it would obviously be infinitely more valuable if carried out systematically throughout the year. Sometimes it would prevent an outbreak, and it would always ensure of one's information as to the extent of an outbreak being more exhaustive than under present conditions. No school medical service can be considered complete when this supervision is absent, though the difficulties of organisation in a rural area are obvious.

In Brockham a child below school age was notified as suffering from diphtheria in October. An elder brother who attended school was found to have the bacillus in the

throat, and a girl above school age was also a carrier. Then came a fatal case in a cottage near the school, to be followed by another school case a few days later. Two school children in the second family were carriers. London children had been boarded out in cottages in this parish during the summer, and were probably the means of introducing infection. Three of these children had been accommodated in the cottage occupied by the last of the three families referred to above. The school was closed for a month, and the services of a school nurse were placed at our disposal on re-opening. No further cases occurred. In one instance the attack proved fatal : it was an example of a slow insidious onset, which did not suggest the nature of the disease until too late to render antitoxin of much benefit.

Of the 9 cases of diphtheria in the Civil Parish of Horley, 8 were from the village of Horley proper, the remaining one being from the portion of the parish abutting on Reigate Borough. These nine occurred in six houses, and were associated chiefly with the Boys' School, four of them actually attending the school, whilst in each of the remaining houses one of the scholars was found to be a carrier. The cases were spread over a considerable interval, one household being attacked in June, two in July, one in October, one in November, and one in December. In July I found a boy attending the school with a slight nasal discharge containing diphtheria bacilli : he was removed to hospital, and in order to ascertain if he was actively infectious, I sent a swab from the nose to Dr. Arkwright of the Lister Institute of Preventive Medicine, who kindly tested the strain and found it to be highly virulent, though producing only a small amount of toxin. The latter finding is interesting in view of the fact that the type of the disease this year has been a mild one, in contrast to its somewhat fatal character in Horley in 1911 and 1912. It is usually difficult to fix even approximately the date of onset in nasal



cases, but in this instance the boy informed me that his nose had been liable to bleed off and on for upwards of a year, having previously been free from such trouble. This suggests that he had become infected during the prolonged outbreak in Horley lasting through the previous autumn and winter, but that he had only become actively infectious recently. The infection proved very chronic, and the boy could not be discharged from the hospital by the end of 1913.

In July, by visiting the homes of children absent from school, I found three definite and obvious cases of diphtheria in one house, no doctor being in attendance. In the ordinary course, they would have recommenced school in a few weeks time. Here again, the advantages of the systematic employment of a school nurse are obvious.

In view of the July attacks I recommended closure of the schools a few days before the summer holidays were due, and a handbill on diphtheria was distributed to a representative of each family.

The eighth case of diphtheria I found during the year was a child attending the Infant School at Walton-on-the-Hill. A number of children were reported as away on account of mumps. The diagnosis appeared to be correct in some instances, but one of the children was recovering from diphtheria, and would have shortly resumed school attendance.

**Carriers.**—Sixteen diphtheria carriers were detected during the year, in the various manners already indicated, and all were treated in the hospital. Eight were infectious in the throat, six in the nose, and two in both throat and nose.

**Persistent infection.**—With the exception of the nasal carriers of the Horley Boys' School, to which reference has been made, none of the cases of diphtheria or carriers remained infectious for exceptionally long periods. Most were discharged from hospital within three months, though one or two more had to remain four months.

Of the 17 patients I examined on return home from the hospital three were found to have recrudescient infection. One went back to the hospital; the other two remained at home, and were visited at intervals of a fortnight until negative results were obtained.

With regard to this subject, reference may be made to the case of a boy in Charlesfield Road, Horley, mentioned in my report for 1912. The boy lived in a cottage where a case of diphtheria was notified, and adjoining one in which two cases occurred in April of that year. He was found to have diphtheria bacilli in the throat and nose, and in a profuse discharge from the ear. The bacilli from the ear were examined at the Lister Institute, and pronounced to be highly virulent. He was admitted to the hospital on April 29th, and returned home on June 23rd, after the discharge from the ear had ceased, and after two successive swabs from both nose and throat had been examined with negative results. On the 26th I again found the bacilli in the throat, and he returned to hospital, where he remained till December 14th. On the 17th the ear discharge had commenced again, and was teeming with diphtheria bacilli, swabs from the throat and nose giving negative results. He was discharged in perfect health on March 30th, 1913, and the family shortly afterwards left the district for Horsham. I heard in December that he was attacked there with diphtheria, about November 27th. This case illustrates the difficulty of dealing with outbreaks associated with chronic human sources of infection.

In view of the concern felt by many of the inhabitants of Horley as to the continued prevalence of the disease in and around the village, the District Council appointed a committee, consisting of the Horley representatives, to enquire into the matter. One meeting was held in December, 1913, and another in January, 1914.

During the past few years there has been a somewhat unusual number of diphtheria outbreaks traceable to school attendance through the existence of carriers. Their identification by bacteriological means involves an appreciable expenditure, since the only reliable and radical method of dealing with a severe outbreak of this kind means the examination of both throat and nose of every child attending. The District Council have twice approached the County Education Committee to bear or share this cost, but have met with refusal. If there were no other alternative for the District Council to adopt, there would be no question that their duty as the local health authority is to have the examination made at the cost of the local rates. They have power however, to close such a school, and closure for a long period, six months for example, would probably have an equally good result, since in rural areas school attendance is the only factor, for all practical purposes, by which diphtheria is spread on an extensive scale (leaving milk epidemics out of consideration). It is therefore to be regretted that the Education Committee cannot see their way to co-operate in this matter.

**Puerperal Fever.**—Two cases were reported. In one instance neither the doctor nor the midwife were summoned in time, and some of the membranes appear to have been retained. In the other case, which ended fatally, a family friend acted as nurse, but there was no evidence of neglect on her part.



A young woman from Brockham died in Guy's Hospital from a similar but more chronic complication of child-birth.

**Pulmonary tuberculosis.**—Fifty-seven cases were notified during the year, one case verbally only. Two were tramps with no permanent home, one of whom died; two were inmates of Netherne Asylum, one being erroneously notified, since he was not derived originally from the district; and two were attendants at the Asylum. One case only comes to work in the district by day, his home being in Sussex. Four were notified twice, and two were notified three times. Three were cases already notified in previous years. Twelve of the cases (over one-fifth of the total) were new comers to the district, having been attacked before they arrived. Fifteen died during the year, and three left the district permanently.

Sixteen were "insured" persons, 10 more being dependents, leaving 32 who came in neither category, a surprisingly large proportion, to which reference will be made later.

In 27 out of 44 cases, in which details could be obtained, there was a history of tuberculous disease in near relatives.

Only 13 of the cases received institutional treatment, 3 at the hands of the Guardians, some through the County Insurance Committee, and some through private agencies.

In only two instances could the condition of the houses be described as bad.

**Other forms of tuberculosis.**—Only 3 cases were notified, which cannot form more than a small proportion of those that actually exist in the district. The notifications

referred respectively to disease of the hip, ankle, and cervical glands. Two of the patients were of the "insured" class, the third being a dependent. This last was notified twice during the year, and received treatment at the Royal Sea Bathing Hospital, Margate, through private assistance. The dwellings were reasonably satisfactory in all instances.

The Local Government Board ask for details as to action taken under the following headings :—

(a) *Visits made on receipt of primary notifications.*—A visit is paid by myself, or occasionally by the Sanitary Inspector, and particulars are obtained under about 14 headings as to the date of onset, family history, inmates of house, condition of premises, etc. In cases of pulmonary tuberculosis, where expectoration is present, pocket sputum flasks and disinfectants are supplied, and in all instances a hanging card is sent, giving a few suggestions as to precautions to be taken, and indicating the necessity for abundant ventilation. The premises are subsequently inspected.

When the certifying practitioner asks that no official visit shall be paid, he is requested to furnish certain particulars about the case for purposes of registration.

(b) *Subsequent visits.* These are seldom paid, unless disinfection is required.

(c) *Nature of any arrangements for the detection of unrecognised cases of tuberculosis associated with notified cases of the disease.* Enquiries are made at the primary visit as to the health of the other inmates, but the examination of contacts is not attempted, since the County Council have made themselves responsible for this practice, and it will, no doubt, be commenced when their somewhat belated scheme is in working order.

(d) *Nature of arrangements made or proposed for utilising the services of the tuberculosis officer or nurses for the above purposes.* At present the tuberculosis officer confines his attention to "insured" persons only, and no nurses had been appointed by the County Council during the year.

(e) *Measures of cleansing and disinfection.* If the premises are found on inspection to require cleansing, the necessary notices are served. Disinfection is carried out when a case of pulmonary tuberculosis leaves the house, or dies.

The County Council scheme for dealing with tuberculosis was discussed during the month of June at a Conference attended by the members of the Councils of the County, Reigate Borough and Reigate Rural District.

The County Council have undertaken to deal eventually with insured persons and their dependents, and to contribute one quarter of the cost of patients coming under neither classification, provided the local authority concerned contributes a similar amount.

It cannot be predicted what local expenditure this will involve. As mentioned previously, 32 out of the 60 notifications received during the year of all forms of tuberculosis were in respect of persons who were neither insured nor their dependents. It does not follow that all these would apply for assistance. Some were quite capable of making provision for themselves, and would probably prefer to do so. Some would naturally come under the care of the Guardians, and some were almost at the point of death when notified. The number in 1913 that might be expected to apply for assistance would probably be between 10 and 17. This is an appreciable proportion of the whole, for which the District Council would have to find money,



without any real control over its expenditure. The proportion may decrease in future years.

### **The Non-notifiable Infectious and Contagious Diseases.**

Our knowledge as to the prevalence of these is chiefly derived from the returns made by the teachers of the public elementary schools, which are necessarily far from representing the actual number of attacks that occur. As regards measles and whooping cough, circulars are sent to addresses where a case is known to have arisen, and are distributed to the children when a school is closed. The circulars point out the dangerous nature of the diseases, and the necessity for obtaining medical advice at once.

**Measles.**—Thirty-seven cases were heard of, but there must have been many others. Three deaths resulted, two being children below school age. The cases occurred in the Ecclesiastical Parishes of Brockham, Horley, South Merstham, Nutfield and Outwood. No schools were closed.

**Whooping Cough.**—Sixty-two cases were reported, and three deaths resulted, all below school age. Most of them occurred in Horley, a few being in Nutfield. The Infant School in Horley was closed on July 15th until September 5th, but the outbreak was not over by the latter date.

**Chicken Pox.**—Altogether 39 cases were heard of, chiefly round Outwood. The attendance fell to such an extent that I agreed to recommend closure from November 24th till the end of the term. The Infant class was the only one to be seriously affected, but it is not possible to close one or more classes alone: consequently the whole school had to suffer. Cases were also reported in Betchworth, Brockham, Charlwood, Horley, Kingswood, Leigh and Walton-on-the-Hill.

**German Measles.**—One case was reported in South Merstham. On investigation it proved to be actually an attack of scarlet fever.

**Mumps.**—Ten cases were reported in Chipstead, Horley, Leigh, Nutfield and Walton-on-the-Hill. I investigated most of them, since the disease is liable to be confounded with diphtheria by parents. This proved to be the case at Walton.

**Ringworm.**—Seven cases were notified from Chipstead, Horley, Merstham, Outwood and Salfords schools.

**Skin diseases.**—Chiefly impetigo and pediculosis, were notified four times from Chipstead and South Nutfield schools.

**Sore Throat.**—Twelve attacks were reported from Brockham, Horley, Merstham, Nutfield, Salfords and South Nutfield schools, and I examined most of them.

## SECTION IV.

### SANITARY CIRCUMSTANCES AND ADMINISTRATION OF THE DISTRICT.

The following adoptive Acts are in force :—

The Infectious Disease (Prevention) Act, 1890.

The Public Health Acts Amendment Act, 1890 (so far as it relates to rural districts).

The Public Health Acts Amendment Act, 1907, (several sections).

The Private Street Works Act, 1892, in portions of Horley, Merstham, Nutfield and Walton-on-Hill parishes.

Bye-laws applicable to the whole district are in force with respect to:—

New Streets and Buildings (approved November 1st, 1905).

Slaughterhouses.

Nuisances.

Tents, vans and sheds.

Hop, fruit and vegetable picking.

Regulations with respect to Dairies, Cowsheds and Milkshops, were adopted on May 10th, 1899.

With regard to the bye-laws on tents, vans and sheds, the rural portions of Surrey are especially patronised by the gipsy tribe, and many complaints are received. It is usually assumed that the Council and their officers have considerable powers for regulating them, but the bye-laws only apply when they take up their abode for lengthy periods, and have no reference to the complaints mainly received. No infectious disease has been attributable to them during the year.



There are no offensive trades, cellar dwellings nor common lodging houses in the district, and, although a few casual hands are employed for harvesting, there is no hop, fruit, or vegetable picking to require the provision of accommodation for temporarily employed labour.

In previous reports I have referred to the desirability of providing the Sanitary Inspector with assistance. This requirement has now been met by the appointment of Mr. Wilson, who previously served under the Reigate Borough Council in a somewhat similar capacity, as Clerk and Assistant Inspector.

The following is a classified list of inspections carried out, and the resulting action taken during the year by the Sanitary Inspector:—

Inspections of working class dwellings	...	319
„ „ Slaughterhouses	...	60
„ „ Bakehouses	...	32
„ „ Cowsheds, milkshops and dairies		260
„ „ other premises	...	486
Re-inspection of various premises	...	1140
Preliminary notices served	...	262
„ „ outstanding at end of year		41
Statutory notices served (all complied with)		24

The Sanitary Inspector presents a printed report monthly to the District Council, when any statutory notices required are obtained. No further proceedings have proved necessary during the year.

### **Housing of the Working Classes.**

Inspections were made of 319 working class dwellings, as compared with 260 in 1912 and 301 in 1911.

The following tabular statement indicates the procedure taken in 1913 with respect to working class dwellings :—

Number of dwelling houses inspected under and for the purposes of Section 17 of the Act of 1909	...	...	...	...	319
Number of dwelling houses considered to be in a state so dangerous or injurious to health as to be unfit for human habitation	...	...	...	...	6
Number of representations made to the local authority with a view to the making of closing orders	...	...	...	...	4
Number of closing orders made	...	...	...	...	4
Number of dwelling houses the defects in which were remedied without the making of closing orders	...	...	...	...	2
Number of dwelling houses which after the making of closing orders were put into a fit state for human habitation	...	...	...	...	2

Demolition orders were served in the remaining two instances and demolition had been commenced by the end of the year.

No action was taken under Secs. 14 or 15 of the Housing, Town-planning, etc. Act, 1909, the Public Health Acts being sufficient for the remedy of the nuisances detected. These were found to exist in 193 of the 319 dwellings inspected, the following representing the principal conditions found :—

Dampness	...	...	in 88 instances.
Dirty conditions	...	...	„ 68 „
Defective drainage	...	...	„ 31 „
Hand flushed water closets	...	...	„ 13 „
Insufficient light and ventilation to closets	...	...	„ 26 „

Insufficient yard paving	...	„	9	„
Want of proper dustbins	...	„	33	„
Offensive accumulations	...	„	12	„
Overcrowding	...	„	5	„

Water closets were present in 209 of the 319 houses, the remainder being furnished with pail closets or privies.

One hundred and seventy one were drained to sewers, 106 to cesspools and 1 to a ditch.

Three hundred and fifteen were supplied by the Water Companies, 3 were furnished with wells, and one relied on rain water. Two of the well water supplies were unsatisfactory; the public supply was laid on in both instances.

The above inspections embraced portions of all the parishes in the District, but the work was mainly carried out in Horley, Kingswood and Brockham.

As indicated above, overcrowding was met with in five instances, and duly abated.

The Surveyor informs me that there were completed for occupation during 1913 houses and cottages as under :—

Parish.	Working class dwellings.	Other dwellings.
Burstow ...	2	2
Charlwood ...	1	1
Chipstead ...	3	1
Horley ...	12	7
Kingswood ...	4	3
Leigh ...	0	1
Merstham ...	0	1
Nutfield ...	2	0
Walton-on-the-Hill	4	8
Total ...	28	24

These were erected under the bye-laws allowed by the Local Government Board in November 1st, 1905, and were supervised by the Council's Surveyor.

In my report for 1912 I referred to an inspection made on behalf of the Local Government Board by Dr. Manby, who reported the necessity in his opinion for additional cottages in the parishes of Betchworth, Chipstead, Kingswood and Walton-on-the-Hill at rentals of 4/6 to 5/6 a week. It will be observed that in the three last-named parishes 11 cottages were completed during 1913, though in all probability the rents were in excess of those suggested. I doubt if it would be possible at the present time to build good cottages with three bedrooms in any of these parishes to let at under 6/- including rates, without casting a burden on the ratepayers.

In March a complaint was made to the Local Government Board by four inhabitant householders of the Parish of Kingswood that the local authority had failed to exercise their powers with regard to the provision of working class dwellings, and the Board held a local inquiry under Sec. 10 of the Housing, Town Planning, etc., Act, 1909, in the month of September. In January of the present year (1914) the Board intimated that they were of opinion that additional housing accommodation was required in the parish.

In December, 1913, the District Council adopted a resolution "That wherever in the district a shortage of cottages is proved, the District Council are prepared to take the necessary steps towards providing accommodation for its own employees, as far as this may be essential and advisable."

In June, 1913, a letter was received from the Local Government Board enclosing a copy of a letter from an inhabitant of Outwood in the Civil Parish of Burstow,



alleging a shortage of cottages in that portion of the district. The opinion of the Parish Council was requested on the subject, the reply being to the effect that the existing accommodation was sufficient for the needs of the parish. This is in accordance with some enquiries I made a few years ago.

In a district of this character it must be conceded that it is exceedingly difficult to form a reliable opinion as to the presence or absence of shortage. If there be much overcrowding (within the meaning of the Public Health Acts), or a considerable number of dwellings absolutely unfit for habitation, which cannot be closed on account of the absence of alternative accommodation, the case is clear, but neither of these criteria can be said to obtain appreciably in this district, while the vital statistics only give negative support in this direction. I have referred in previous reports to the high rentals obtaining in many of the parishes, an opinion which was supported by Dr. Manby. At the Kingswood local enquiry this was emphasised, whilst evidence, of a type which would be accepted by a judicial Court, as to appreciable numerical shortage, may be said to have been non-existent.

The problem in this neighbourhood therefore may be considered to be more of an economic than of a public health nature, and it is, moreover, liable to be complicated when enquiries are confined to a definite parish, since an apparent numerical shortage in any parish may be due to deficient accommodation for the working classes in a neighbouring parish or parishes, which may not necessarily even form a portion of the same sanitary district. Under such circumstances the provision of cottages at a rent below that which covers the essential outgoings is tantamount to subsidising wages in certain selected instances. If, however, the building of a few suitably designed cottages, to let at

economic rents, tends to set an example to builders, and to lower the occasionally exorbitant rents of existing cottages, considerable benefit is likely to result.

### **Public Elementary Schools.**

There are nineteen separate buildings in the district. During the past eight years new buildings have been provided, or structural improvements have been gradually carried out in most of those instances where the conditions had been unsatisfactory. New schools at Leigh and Charlwood were completed and opened during the year. The buildings are up to the usual excellent standard adopted by the County Education Authority, though the heating arrangements in some of the class rooms in the Charlwood school are scarcely adequate. In both schools all or a portion of the playgrounds should be asphalted or otherwise rendered waterproof. The public water supply is available at all the schools in the district.

The measures taken to limit the spread of infection are referred to under the section dealing with the communicable diseases.

The routine medical inspection is undertaken by whole time assistants to the County School Medical Officer. His staff of assistants and school nurses has recently been increased with a view of undertaking treatment in certain classes of physical defects.

The control of infectious diseases in the schools is left in the hands of the Medical Officer of Health. The Head Teachers and School Attendance Officers are expected to report cases of infectious and contagious diseases to the Medical Officers of Health. Some of the Head Teachers perform this task more efficiently than others.

I paid 41 visits to schools during the year, 87 to the homes of individual children, and made 101 bacteriological examinations in connection with diphtheria in the schools.

### **Water Supply.**

The parish of Kingswood is supplied by the Sutton District Water Company, the water being derived from deep wells and adits in the chalk at Sutton and Woodmansterne. The water is softened to about 9 degrees Clark, its initial hardness being in the neighbourhood of 19.

The remainder of the district is in the statutory area of the East Surrey Water Company, who also derive their water from the chalk, the bored wells being situated at Kenley and Purley. Practically the whole of the temporary hardness is removed by Clark's process before the water is delivered. It is constant and at high pressure, and, so long as it remains as organically pure as it has been in the past, it must be classed in the very front rank of public supplies.

The mains, though present in every parish, are not laid along every road or lane, and in such cases the dwellings or farms rely on wells, rainwater tanks or springs.

I examined samples from six wells chemically and bacteriologically during the year, four being dangerously polluted. The public supply was laid on in three instances, but was not available in the fourth: in this instance the well was cleansed and treated with lime. A second sample yielded fairly satisfactory results. In one other instance the public supply was laid on to an existing dwelling, and in six further cases the wells were cleansed.

### **Food Supply.**

**Milk.**—There are 75 registered cow-keepers, and three other occupiers of dairies in the district, all of whose premises are periodically inspected. So far as is practicable,



the cowsheds are kept up to the standard prescribed by the regulations, but these are not sufficiently precise or wide to ensure really satisfactory conditions. One of the chief causes of dirty floors and dirty cows is the position of the midden and the condition of the approaches, neither of which can be dealt with under the existing regulations. Compulsory clipping of the cows' coats in the neighbourhood of the flanks would be helpful, and it should be illegal for a cooler to be in a room communicating directly with a shed. Under present circumstances also it is not possible to require the water used in a cooler to be above suspicion ; in several farms having the public supply well water is used for cooling to save expense. The collection of samples of dairy products and other food substances for analysis is undertaken by the County Council, and the County Medical Officer of Health has very kindly forwarded me a list of the analytical results for 1913, so far as this district is concerned. Though the samples were not limited to milk, it will be convenient to reproduce the list here :—

Articles.	Analysed.	Adult'rated or Deterioat'd	Prosecu- tions.	Convictions.
Milk ... ..	26	1		
Cream ... ..	2	1		
Butter ... ..	6			
Cheese ... ..	1			
Margarine ...	1			
Bread ... ..	2			
Confectionery and Jam ... ..	2			
Pepper... ..	1			
Beer ... ..	2			
Spirits... ..	2			
Other articles ...	1			
Totals ... ..	46	2		



As regards tuberculous milk, no measures have been taken by the District Council to detect the presence of infection among the herds. The County Council's inspectors have had occasion to visit several of the farms in the district in connection with the Tuberculosis Order of 1913, issued by the Board of Agriculture, and as the result of information received from the London County Council, the Reigate Borough Council and similar local authorities, in whose districts tuberculous milk was being received. Before this Order came into force, the London County Council reported the existence of a tuberculous cow at a Leigh farm. We found that the animal had been sold in Croydon a fortnight previously.

A case of suspected anthrax in the same parish was reported by the Police during March.

**Meat.**—There are 15 slaughter-houses in the district, of which seven are comparatively new and well-designed, and are licensed annually. One old one ceased to be used. Of the remaining old ones two are not completely satisfactory as regards structure and surroundings, but the Council has no jurisdiction in such matters. All are maintained in good order and are frequently inspected. No diseased or unsound food was detected on these premises.

**Bakehouses.**—There are 14 bakehouses, none of them being of the underground variety. They are well looked after, and satisfactory of their respective kinds.

**Other Foods.**—Premises where other kinds of food are prepared, stored or exposed for sale are comparatively few in number, and are periodically inspected.

#### **Closet Accommodation.**

In the sewered portions of the district water closets are universal, and this type of convenience exists in many

of the premises drained to cesspools. Elsewhere pail closets are the rule, and privies with fixed receptacles are abolished when found on inspection. The approximate numbers of the various types of conveniences are unknown, save where they are recorded in this and previous annual reports in connection with house-to-house inspection.

### **Scavenging.**

This is carried out by contract in portions of Horley and Merstham villages, and appears to have been reasonably efficient. Moveable bins are the receptacles provided in these areas.

An application was received from inhabitants in Waterhouse Lane, Kingswood, asking that the Council would undertake the removal of house refuse. The application was forwarded to the Kingswood Parish Council, but no definite request for the District Council to initiate the procedure was received during the year.

### **Drainage and Sewerage.**

Portions of the villages of Horley, Merstham, Nutfield and Charlwood are sewered, the sewage being dealt with on small farms after some preliminary treatment. Elsewhere premises are generally drained to cesspools, the contents being attended to by the occupiers or owners. A cesspool cart is provided by the Council for such of the parishes in the north of the district as may require it, the person desiring its use paying for the horse and driver as well as a small fee for hiring the apparatus.

When the land in connection with cottages is unsuitable or too small for the disposal of cesspool contents, a pail is usually provided under the sink, and the fresh waste water can then generally be disposed of.

The works and cottages in connection with the Lanston Monotype Co., Ltd., in Horley parish, have a small

installation consisting of a septic tank and percolating coke filter. The effluent discharges into a roadside ditch, and complaints have occasionally been received in previous years as to the smells emanating therefrom. This smell, however, is not derived from the domestic sewage, but from the washings of a producer gas plant that discharge into the same ditch.

There is a similar installation at the Council's isolation hospital, which deals effectively with the waste waters of the buildings. Some of the larger houses and other premises outside the sewerage systems have private installations of varying degrees of efficiency.

At the end of the year the Council had under consideration the disposal of sewage and excrement in the Civil Parishes of Betchworth, Walton-on-the-Hill and Kingswood, and decided at the commencement of 1914 to undertake the emptying of cesspools and pail closets in the first named parish, and to purchase a cesspool emptying apparatus for the use of Walton-on-the-Hill and Kingswood, resolving to ask the Local Government Board for an Order making the charges special ones on the parishes concerned.

### **River Pollution, etc.**

There are no streams in the northern portion of the district situated on the chalk. The remainder drains into the basin of the River Mole. This river originates in the Tunbridge Wells Sands of northern Sussex, receives many tributaries as it runs north over the weald clay, and a few derived from the greensands, gault and foot of the chalk escarpment, before it penetrates the North Downs near Dorking. It forms the natural outlet for all the drainage and sewage of the towns and villages situated within its basin, and is kept under careful supervision through its course in Surrey by the Thames Conservancy. Complaint



was made to the District Council by this body of the effluent from the small Charlwood sewage farm, which received attention. A complaint of pollution of the same river near Brockham Green was made, and this was found to be due to some stables draining into a ditch. It was duly dealt with.

The surface water ditch running through private ground parallel to and between Lumley and Albert Roads, Horley, was again the subject of complaint. No sewage finds its way there, but partial stoppages occur, and cans and similar materials are thrown into it. The ditch has twice been cleansed by the District Council, who decided towards the end of the year to have the ditch piped and covered in.

There are two other ditches in the neighbourhood of Horley Village which fall into the same condition from time to time. It is practically impossible as a rule to prevent them becoming the repository of refuse of various kinds, and the only radical treatment in such cases is to have them piped.

### **Special Enquiries.**

The District Council appeared by Counsel and witnesses at a Local Government Board Enquiry held in Croydon, in which the Borough Council were seeking to extend their boundaries by the absorption of various surrounding parishes and portions of parishes. They desired to include the northern portion of Coulsdon parish, and proposed that the considerable southern portion should be transferred to the Rural District of Reigate. The District Council opposed this proposal, inasmuch as the part of Coulsdon to be transferred would be difficult and costly to administer, whilst its rateable value was comparatively negligible. The means of communication from the Reigate side are long and circuitous, and, to reach the most important



portion, it would be necessary to traverse an entirely different sanitary district for a mile or more. The result of the Enquiry was not declared by the end of the year.

Another matter arising out of the Enquiry was the suggested formation of a Joint Drainage Board for parishes outside the Borough of Croydon, which lie principally on the chalk formation of the North Downs. There are no streams on this formation into which the effluent from a sewage installation could be discharged, and the construction of a sewerage system for many of the growing parishes which rest on the chalk is therefore by no means an easy problem. The Council gave their general approval to the formation of a Joint Drainage Board, provided that the scheme ensured efficiency, and would not involve an excessive charge on the parishes concerned, but without in any way binding themselves to details.

At the request of the Local Government Board, I prepared a report on the method of sewage disposal adopted for the dwellings in Oakdene Road, Brockham, in connection with which road the District Council had made application for the adoption of the Private Street Works Act, 1892.

## LABORATORY WORK.

The following examinations for the diphtheria bacillus has been carried out in my laboratory, where the media, etc., are also prepared :—

				Diph- theria bacillus found.	Diph- theria & Hoffman's bacillus not found.	Hof- mann's bacillus found.	Total.
Suspected diphtheria	...	...	...	18	51	2	71
Convalescent	„	...	...	33	108	15	156
Contact	„	...	...	15	42	6	63
Total	...	...	...	66	201	23	290

Two samples of sputum were examined for the tubercle bacillus with negative results.

One sample of blood was examined for the Widal (typhoid) reaction, with a negative result. (The case proved to be one of malignant disease).

One sample of pus was examined for anthrax, but no bacilli of this disease were present.

Arrangements have been made with the Lister Institute for the examination of specimens of cerebro spinal fluid for the meningococcus, but the occasion did not arise during the year.

Seven samples of water from six wells were examined chemically and bacteriologically, with results referred to in the section on water supplies.

Two samples from a pond at the rear of Station Road, Horley, were examined, and yielded reasonably good results for a water of this description, with no indication of sewage pollution.

## SECTION V.

# FACTORIES AND WORKSHOPS.

Below are the tables prescribed by the Home Office. In the absence of outworkers, No. 3 is not applicable to this District.

## 1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises. (1)	Number of		
	Ins pections (2)	Written Notices. (3)	Prosecu- tions (4)
Factories (including Factory Laundries) ...	12	1	
Workshops (including Work- shop Laundries) ...	60		
Workplaces (Other than Out- workers' premises included in Part 3 of this Report) ...	8		
Total ...	80	1	

2.—DEFECTS FOUND IN FACTORIES,  
WORKSHOPS AND WORKPLACES.

Particulars. (1)	Number of Defects.			Number of Pro- secutions (5)
	Found. (2)	Remedied (3)	Referred to H.M. Inspector (4)	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness ...	1	1		
Want of ventilation ...				
Overcrowding ...				
Want of drainage of floors ...				
Other nuisances...				
Sanitary {insufficient ...				
accom- {unsuitable or ...				
modation {defective ...	2	2		
{not separate for ...				
{sexes ...				
<i>Offences under the Factory and Workshop Acts :—</i>				
Illegal occupation of under- ground bakehouse (s. 101)				
Breach of special sanitary requirements for bake- houses (ss. 97 to 100) ...				
Other offences ...				
(Excluding offences relat- ing to outwork which are included in Part 3 of this report) ...				
Total ...	3	3		

\* Including those specified in sections 2, 3, 7 and 8, of the Factory and Workshop Act as remediable under the Public Health Acts.



## 4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year. (1)	Number. (2)
Important classes of workshops, such as workshop bake-houses, may be enumerated here. {	
Bakehouses ... ..	14
Factory Laundries ... ..	6
Other Workshops ... ..	26
Total number of workshops on Register	46

## 5.—OTHER MATTERS.

Class. (1)	Number. (2)
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133) ... ..	
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5). {	
Notified by H.M. Inspector	1
Reports (of action taken) sent to H.M. Inspector	1
Other ... ..	
Underground Bakehouses (s. 101) :—	
Certificates granted during the year ... ..	nil
In use at the end of the year ... ..	nil

The Factory Inspector drew the Council's attention to the sanitary conveniences at the Lanston Monotype Works. These conveniences are not in accordance with the Order of the Secretary of State of 4th February, 1903. Section 22 of the Public Health Acts Amendment Act, 1890, however, is not in force in the District, and, as no nuisance could be proved, on which effective action could be taken under the Public Health Acts, the Council were unable to require the alterations which would be necessary to bring the conveniences into accordance with the Order referred to.